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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,727	06/26/2000	Michael D. Kotzin	CS 10462	2908

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Motorola Inc
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EXAMINER	
LE, DANH C	

ART UNIT	PAPER NUMBER
2683	4

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/602,727	KOTZIN, MICHAEL D.	
	Examiner	Art Unit	
	DANH C LE	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 March 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24 and 26-42* is/are rejected.

7)☒ Claim(s) *25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 4, 6-8, 10-12, 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Pequet (EP 0698303 A1).

As to claim 1, Pequet teaches a method for receiving a radio communication in a radio communication system (figure 1), the method comprising: among a plurality of mobile stations (M1-M4), selectively assigning one mobile station (M1) of the plurality of mobile stations, each of which is capable of receiving radio communications directly from a remote radio, as a first mobile station for receiving radio communications from the remote radio intended for one or more of the plurality of mobile stations; receiving the radio communication from the remote radio (BS) at the first mobile station of the plurality of mobile stations; and transmitting a local radio communication from the first mobile station to an intended recipient mobile station of the plurality of mobile stations (col.4, line 26-col.6, line 6).

As to claim 3, Pequet inherently teaches the method of claim 1 wherein selectively assigning comprises: among the plurality of mobile stations, sequentially assigning one mobile station of the plurality of mobile stations as the first mobile station (since all mobiles are identical, one of them assigns as the first mobile station).

As to claim 4, Pequet teaches the method of claim 1 wherein selectively assigning comprises: among the plurality of mobile stations, assigning the first mobile station to receive the radio communication (figure 1, M1)

As to claim 6, Pequet teaches the method of claim 1 wherein selectively assigning comprises: 1 assigning the first mobile station to receive radio communications; and subsequently, de-assigning the first mobile station and assigning another mobile station of the plurality of mobile stations to receive -radio communications (col.6, line 48-col.7, line 6).

As to claim 7, Pequet teaches method of claim 1 wherein selectively assigning comprises: among the plurality of mobile stations, identifying a mobile station having best radio reception characteristics; arid assigning the identified mobile station as the first mobile station (col.3, lines 35-52).

As to claim 8, Pequet teaches the method of claim 1 further comprising: decoding data in the radio communication; identifying an intended recipient in the data; and when the intended recipient corresponds to a mobile station of the plurality of mobile stations, transmitting the local radio communication from the first mobile station to the intended recipient mobile station (col.4, line 26-col.6, line 6).

As to claim 10, Pequet teaches the method of claim 1 further comprising: transmitting from one mobile station of the plurality of mobile stations to a remote radio of the radio communication system identification information for each mobile station of the plurality of mobile stations (col.4, line 26-col.6, line 6).

As to claim 11, Pequet teaches the method of claim 10 further comprising: transmitting radio communications intended for any mobile station of the plurality of mobile stations during a common predefined time period (col.3, line 54-col.4, line 25).

As to claim 12, Pequet teaches the method of claim 1 further comprising: receiving the radio communication in accordance with a first radio communication protocol; and transmitting the local radio communication in accordance with a second radio communication protocol (col.3, line 54-col.4, line 25).

As to claim 18, the claim is an apparatus claim of claim 1; therefore, the claim is rejected and interpreted as set forth in the claim 1.

As to claim 19, Pequet teaches the portable electronic device of claim 1further comprising: decoding means for decoding the: downlink radio transmission in conjunction with the receiving means (col.4, line 26-col.6, line 6).

As to claim 20, Pequet teaches the portable electronic device of claim 19 further comprising:

control means for determining an intended recipient of the downlink radio transmission (col.4, line 26-col.6, line 6).

2. Claims 14, 15, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Luzzatto (US 5,689,802).

As to claim 14, Luzzato teaches the mobile station operable in a radio communication system (figure 2), the mobile station comprising:

a first radio circuit (normal);

a local radio circuit (forward); and

a control circuit (50) operable in conjunction with the first radio circuit to decode a radio communication from a remote radio and operable in conjunction with the local radio circuit to transmit to an intended recipient from one or more of a plurality of mobile stations (figure 1, 12) , located locally relative to the mobile station, a local radio communication in response to the radio communication, when selectively assigned to receive radio communications from the remote radio for the one or more of the plurality of mobile stations, each of which is capable of receiving radio communications directly :from the remote radio (col.3, line 17-col.4, line 33).

As to claim 15, Luzzato teaches the mobile station of claim 14 wherein the control circuit is further operable to identify an intended recipient of the radio communication and transmit the local radio communication to an associated mobile station when the intended recipient is the associated mobile station (col.3, line 17-col.4, line 33).

As to claim 17, Luzzato teaches the mobile station of claim 16 wherein the local radio circuit comprises: a local receiver operable in a short range radio communication system including at least the associated mobile station; and a local transmitter operable in the, short range radio communication system (in forward mode, a local receiver 20, a local transmitter 21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pequet .

As to claim 9, Pequet teaches the method of claim 8. Pequet fails to teach further comprising: when the intended recipient does not correspond to a mobile station of the plurality of mobile stations, discarding the radio communication. However, if the intended recipient does not correspond to a mobile station of the plurality of mobile stations, discarding the radio communication is obvious because counter tag is include in the synchronization information to avoid delay and errors. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of discarding the link into the system of Pequet in order to save power for the mobile stations.

4. Claims 13, 16, 21-24, 26-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pequet in view of Lehmusto (US 6,108,551).

As to claim 13, Pequet teaches the method of claim 12. Pequet fails to teach transmitting the local radio communication at a relatively low transmit power for local reception by the plurality of mobile stations. Lehmusto teaches transmitting the local radio communication at a relatively low transmit power for local reception by the plurality of mobile stations (col.6, lines 10-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Lehmusto into the system of Pequet in order to save power for the mobile stations.

As to claim 16, the combine of Pequet and Lehmusto teaches the mobile station of claim 14 wherein the first radio circuit comprises: a receiver operable on a cellular radio communication system; and a transmitter operable on the cellular radio communication system (figure 4, 501).

As to claim 21, Pequet teaches the method for operating a mobile radio communication station (figure 1), the method comprising:

receiving a downlink radio transmission from a remote radio;

determining art intended recipient of the downlink radio transmission; and

when the intended recipient corresponds to an associated mobile station, which is located locally relative to the mobile radio communication station receiving the downlink radio transmission, and which has selectively disabled direct communication with the remote radio, transmitting information about the downlink radio transmission to the associated mobile station on local radio link.

Pequet fails to teach the transmission to the associated mobile station on a low power local radio link. Lehmusto teaches the transmission to the associated mobile station on a low power local radio link (col.6, lines 10-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Lehmusto into the system of Pequet in order to save power for the mobile stations.

As to claim 22, the combine of Pequet and Lehmusto teaches the method of claim 21 further comprising: using the low power radio link, coordinating reception of subsequent downlink radio transmissions among a plurality of mobile radio

communication stations including at least the associated mobile station (Lehmusto, col.6, lines 10-34).

As to claim 23, the combine of Pequet and Lehmusto teaches method of claim 22 wherein coordinating reception comprises; assigning a respective reception interval to each mobile radio communication station of the plurality of mobile radio communication stations (col.3, line 64-col.4, line 11).

As to claim 24, Pequet teaches method of claim 22 wherein coordinating reception comprises: dedicating one mobile radio communication station of the plurality of mobile radio communication stations to reception of subsequent downlink radio transmissions based on a reception parameter (col.3, line 64-col.4, line 11).

As to claim 26, the claim is an apparatus claim of claim 21; therefore, the claim is interpreted and rejected as set forth in the claim 1.

As to claim 27, the combine of Pequet and Pequet teaches the radio communication method of claim 26 wherein transmitting

information comprises transmitting data in accordance with the Bluetooth radio communication protocol (short range).

As to claim 28, Pequet teaches the radio communication method comprising:

defining a group of mobile stations in radio communication with one or more remote radios of a radio communication system (figure 1, M1-M4);

within the group, assigning a first mobile station for receiving downlink transmissions from the one or more remote radios;

subsequently, receiving the downlink transmissions;

identifying in the downlink transmissions data intended for one or more members of the group; and

communicating the data from the first mobile station to the one or more members over a radio communication system.

Pequet fails to teach the group is a local group of the mobile station. Lehmusto teaches the group is a local group of the mobile station (col.3, lines 29-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Lehmusto into the system of Pequet in order to enable the transmission turn of the radio phones on a direct mode channel to be controlled which the radios units do not interfere with one another.

As to claim 29, the claim is a method claim of claim 28; therefore, the claim is interpreted and rejected as set forth in the claim 28.

As to claim 30, the combine of Pequet and Lehmusto teaches the method of claim 29 wherein wirelessly communicating comprises; transmitting data from a first member of the local group intended for one or more other members of the local group; and receiving the data at least some of the one or more other members of the group (Pequet, col.4, line 26-col.6, line 15).

As to claim 31, the combine of Pequet and Lehmusto teaches the method of claim 29 further comprising: assigning the assigned electronic device for receiving radio transmissions from the remote radio for all members of the local group (Pequet, figure 1, M1).

As to claim 32, the combine of Pequet and Lehmusto the method of claim 31 wherein assigning comprises: designating one electronic device of the local group as the assigned electronic device based on a performance characteristic for at least some of the members of the local group (Pequet, col.3, lines 35-52, coverage area).

As to claim 33, the combine of Pequet and Lehmusto teaches the method of claim 32 further comprising: measuring a reception characteristic at at least some members of the group; wirelessly communicating information about measured reception characteristics to other members of the group; and designating the one electronic device as the assigned electronic device based on the measured reception characteristics (Lehmusto, col.7, line 38-col.8, line 6).

As to claim 34, the combine of Pequet and Lehmusto teaches the method of claim 31 further comprising: de-assigning the assigned electronic device; and

assigning a next assigned electronic device for receiving the radio transmissions from the remote radio for all members of the local group (Lehmusto, col.3, lines 33-55).

As to claim 35, the combine of Pequet and Lehmusto teaches the method of claim 31 further comprising: distributing assignment for receiving radio transmissions from the remote radio for all members of the local group among all members of the local group.

As to claim 36, the combine of Pequet and Lehmusto teaches method of claim 29 further comprising: distributing assignment for receiving radio transmissions from the remote radio among members of the local group (Lehmusto, col.3, lines 33-55).

As to claim 37, the combine of Pequet and Lehmusto teaches the method of claim 29 wherein receiving a receiving a radio transmission comprises: detecting a downlink transmission from a remote radio; decoding the downlink transmission to extract data embedded in the downlink transmission; and identifying the one or more intended recipients in response to the data (Pequet, col.4, line 26-col.6, line 6).

As to claim 38, Pequet teaches the method of claim 29 wherein wirelessly communicating comprises: transmitting information from a first electronic device according to a predefined wireless data communication protocol; and receiving the information at at least a second electronic device (col.3, line 54-col.4, line 25).

As to claim 39, the combine of Pequet and Lehmusto teaches themethod of claim 38 wherein the predefined wireless protocol comprises the Bluetooth standard (Lehmusto, col.3, lines 29-32, close range).

As to claim 40, the combine of Pequet and Lehmusto fails to teach the method of claim 28 wherein the transmission range of the radio communications with the remote radios is greater than ten kilometer and the transmission range of the radio communications over the local radio communication system is less than 100 meters. However, the transmission range of remote radio and local radio is obvious because Lehmusto teaches the radio units group either locate close to one another or a distance apart. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of transmission range into the system of Pequet in order to provide enhance system performance of the TDMA mobile communication system.

5. Claims 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pequet in view of Luzzatto (US 5,689,802).

As to claim 41, Pequet teaches the method for receiving a radio communication in a radio communication system (figure 1), the method comprising:

among a plurality of mobile stations (M1), selectively assigning one mobile station of the plurality of mobile stations (M2-M4) as a first mobile station for receiving radio communications from the remote radio (BS);

receiving the radio communication from the remote radio at the first mobile station of the plurality of mobile stations; and

transmitting a local radio communication from the first mobile station to an intended recipient mobile station of the plurality of mobile stations (col.4, line 26-col.6, line 6).

Pequet fails to teach not energizing at least some of the: circuitry needed for receiving radio communications from the remote radio in at least one or more of the plurality of mobile stations which are not assigned, while radio communications from the remote radio are being transmitted. Luzzatto teaches not energizing at least some of the: circuitry needed for receiving radio communications from the remote radio in at least one or more of the plurality of mobile stations which are not assigned, while radio communications from the remote radio are being transmitted (col.3, line 33-col.4, line 41, the mobile 12 is in the normal mode). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Luzzato into the system of Pequet in order to save the battery in the mobile phone.

As to claim 42, the combine of Pequet and Luzzatto teaches the method of claim 41. wherein the circuitry not energized includes one or more of analog front end circuitry, decoders, and controllers (Luzzatto, figure 2).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pequet in view of Minamisawa (US 6,026,303).

As to claim 2, Pequet teaches the method of claim 1 which assigns the mobile station among the plurality of mobile stations as the fist mobile station for receiving radio communications. Pequet fails to teach selectively assigning comprises identifying a mobile station having particular battery characteristics. Minamisawa teaches selectively assigning comprises identifying a mobile station having particular battery characteristics (col.17, line 51-61). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Minamisawa into the system of Pequet in order to provide enhance system performance of the mobile communication.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pequet in view of Kinnunen (US 6,052,557)

As to claim 5, Pequet teaches the method of claim 1. Pequet fails to teach selectively assigning comprises: assigning the first mobile station to receive radio communications during a predetermined time period. Kinnunen teaches the selectively assigning comprises: assigning the first mobile station to receive radio communications during a predetermined time period (col.5, line 57-col.6, line 15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to provide the teaching of Kinnunen into the system of Pequet in order to provide enhance system performance of the mobile communication.

Response to Arguments

Applicant's arguments with respect to claims 1-42 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Danh C.Le
May 17, 2003

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
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